

Notice of Allowability

Application No.

10/775,251

Examiner

Michael Kornakov

Applicant(s)

ITO ET AL.

Art Unit

1746

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 10/21/2005.
2. ☒ The allowed claim(s) is/are 2,33,35,37 and 39-41.
3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some* c) ☒ None of the:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
(a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
(b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|--|--|
| 1. <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 5. <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 6. <input type="checkbox"/> Interview Summary (PTO-413),
Paper No./Mail Date _____. |
| 3. <input checked="" type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date <u>02/11/04</u> | 7. <input checked="" type="checkbox"/> Examiner's Amendment/Comment |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit
of Biological Material | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance |
| | 9. <input type="checkbox"/> Other _____. |

EXAMINER'S AMENDMENT

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Mr. R. Burgujian, esq., on 01/06/2006.

The application has been amended as follows:

Cancel claims 1, 24-32, 34, 36, 38.

In claim 2 after the words "a vertically extending air intake" insert ---hole and a liquid contacting surface---

In claim 2 replace the word "installed" after the words "a flow control wall" with the clause ---having a top face extended over the substrate holding portion---

In claim 2 after the words "a negative pressure is" insert ---capable of being---

In claim 2 replace the word "and" after the words "rotation of said plate," by the words ---so that---

In claim 2 replace the word "being" after the words "a gas flow" by the word ---is---

In claim 35 replace the words "changed during rotation of the plate" after the words "the center of the plate is" by the words ---changeable to control the negative pressure---

In claim 37 replace the word "moved" after the words "wherein the plate is" by the words ---capable of moving---

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In claim 37 after the words "contact with liquid on the substrate" delete the clause "and the plate is rotated when liquid is in contact with the plate"

In claim 39 replace the word "a" after the word "wherein" by the word ---the---

In claim 39 replace the number "38" after the words "according to claim" by the number ---2---

In claim 40 replace the number "38" after the words "according to claim" by the number ---2---

In claim 40 replace the word "a" after the word "wherein" by the word ---the---

In claim 41 replace the clause "wherein the gas flow directed from an outer edge of the substrate to the center of the substrate is eliminated by generating the gas flow directed" after the words "apparatus according to claim 2," by the words ---further including means for directing the gas flow---

In the specification on page 21, line 6, replace the number "12a" by the number --103a---

In the specification on page 25, line 6, replace the number "12a" by the number --103a---

In the specification on page 25, line 6, remove the clause "during a rotation of the plate 103" after the words "in the center of the plate 103"

In the specification on page 31, line 34, replace the number "12a" by the number ---103a---

Allowable Claims

2. Claims 2, 33, 35, 37, 39-41 are allowable over the prior art of record.

Reasons for Allowance

The following is an examiner's statement of reasons for allowance: The closest prior art of record are Nakamura et al (U.S. 6,265,323) and Kitano et al (U.S. 6,059,880). Both references recite processing apparatuses the structural elements of which include substrate holding portions and flow control walls, wherein side faces of said holding portions have invertedly-inclined gradients and top faces of said flow control walls have gradients substantially parallel to the gradient of the side faces of said substrate holding portions. The apparatuses of Nakamura and Kitano also include plate shaped nozzles disposed above said substrate holding portions. However, neither Nakamura nor Kitano anticipates or suggests fairly plate shape nozzles having vertically extending air intake holes and rotating mechanisms for rotating plate shape nozzles so that a negative pressure is capable of being generated between the nozzle plates and the substrates held by substrate holding portions.

No other prior art that anticipates or suggests fairly a chemical liquid processing apparatus with the combination of structural elements as instantly claimed has been located as of the date of this office action. Therefore, claims 2, 33, 35, 37, 39-41 are allowed over the prior art of record.

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Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael Kornakov whose telephone number is (571) 272-1303. The examiner can normally be reached on 9:00am - 5:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Barr can be reached on (571) 272-1414. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Michael Kornakov
Primary Examiner
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01/06/2006

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